matters, but the following touches one of much importance. The reviewer says that the reasons are not clear for the inference that 'a vegetal covering of the land extended as far back in the history of the earth as clay slates, quartzose sandstones and limestones formed the prevailing sediments.' He proceeds to give reasons for thinking that decomposition and the deposition of limestone may take place without the aid of vegetation, overlooking the meaning of the phrase 'the *prevailing* sediments,' and that of the context, in which it is stated that "if the surface be bare of vegetation, the crystalline rocks are usually disaggregated before they are decomposed, since destructive action occurs best at the junctions of crystals and along cleavage lines and hence the crystals are usually separated from one another before they are fully decomposed. In the absence of a covering to hold them in place until they are decomposed they are apt to be washed away, and the resulting deposit consists in considerable part of grains of feldspar, mica, hornblende and other minerals which do not usually occur in well decomposed sediments." It is difficult to see how a careful student can fail to note that there is here a recognition of decomposition, on a small scale, independent of vegetation. The point to be emphasized was, on the other hand, that in the absence of the protection of a vegetal covering mechanical disintegration so far overpowers decomposition that in most cases the disaggregated particles on the naked surface are carried away by erosion, and give rise to a formation which is only partially decomposed. When, therefore, the 'prevailing formations'—not exceptional or possible ones—consist of the products of *mature decomposition* (II., p. 199, where the matter is again stated) it is reasonable to suppose that the land possessed a vegetal covering.

The authors are scored for not treating the Pacific coast geology of Mesozoic and Tertiary times more fully. It may be that they would reply that it is because relatively few good sections of the strata of the Pacific coast have been published. Nevertheless, sections from that part of the country, illustrating the systems referred to appear as figures on no less than twelve pages in volume III. and additional columns are furnished at the close of that volume. These sections receive as much consideration in an interpretative way as one could expect in a treatise so cosmopolitan in its field. Not improbably the geologists of Dakota think that the geology of Dakota has not received adequate recognition, while the geologists of Texas have the same feeling with reference to the geology of their state, and so on indefinitely. It is but natural that those regions which have been most thoroughly investigated should receive the largest share of attention.

It is in view of such points as these that the reviewer takes occasion to say that 'these are oversights which must annoy teachers of geology.' It is the present writer's observation, in using these volumes as a text-book with students, that the number of misinterpretations put upon the text is extremely small; and while teachers of geology may regret any and every imperfection in the volumes they may well be gratified that so complete and readable a treatise is now available.

Eliot Blackwelder.

University of Wisconsin,
November 7, 1906.

The Determination of the Types of Genera. A Correction.

In my recent article on the 'Determination of the Types of Genera'[1] the sentence,[2] "As *gryphus* was the last species removed from the genus *Vultur* it is its type by elimination * * *," requires modification. In reality *gryphus* was the second species removed from the genus, but the last species to be disposed of by assignment to a special genus of its own, which is the statement intended. From the modern standpoint, no two of the original six species of *Vultur* were congeneric, and *gryphus* was the last species to be provided with a distinctive generic name.

J. A. Allen.

[1] "The 'Elimination' and 'First Species' Methods of Fixing the Types of Genera," Science, N. S., Vol. XXIV., No. 624, pp. 773–779, November 14, 1906.

[2] Page 776, at middle of first column.